

SEQUENCE LISTING

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<120> COMPOUNDS AND METHODS FOR MODULATING CELL ADHESION

<130> 100086.401C18

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<160> 101

<170> PatentIn Ver. 2.0

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<212> PRT

<213> Homo sapiens

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Phe Pro Gln Glu Leu Val Arg Ile Arg Ser Asp Arg Asp Lys Asn Leu
 20 25 30

Ser Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr
 35 40 45

Gly Ile Phe Ile Leu Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys
 50 55 60

Pro Leu Asp Arg Glu Gln Ile Ala Arg Phe His Leu Arg Ala His Ala
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Val Asp Ile Asn Gly Asn Gln Val Glu Asn Pro Ile Asp Ile Val Ile
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Asn Val Ile Asp Met Asn Asp Asn Arg Pro Glu Phe
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 20 25 30

Ser Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr
 35 40 45
 Gly Ile Phe Ile Ile Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys
 50 55 60
 Pro Leu Asp Arg Glu Leu Ile Ala Arg Phe His Leu Arg Ala His Ala
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 100 105

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 35 40 45
 Gly Ile Phe Ile Ile Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys
 50 55 60
 Pro Leu Asp Arg Glu Leu Ile Ala Arg Phe His Leu Arg Ala His Ala
 65 70 75 80
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 20 25 30

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 35 40 45
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 50 55 60
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 65 70 75 80
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 35 40 45
 Gly Val Phe Thr Ile Glu Lys Glu Ser Gly Trp Leu Leu Leu His Met
 50 55 60
 Pro Leu Asp Arg Glu Lys Ile Val Lys Tyr Glu Leu Tyr Gly His Ala
 65 70 75 80
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 85 90 95
 Ile Val Thr Asp Gln Asn Asp Asn Lys Pro Lys Phe
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35 40 45
 Gly Val Phe Ile Ile Glu Arg Glu Thr Gly Trp Leu Lys Val Thr Glu
 50 55 60
 Pro Leu Asp Arg Glu Arg Ile Ala Thr Tyr Thr Leu Phe Ser His Ala
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 35 40 45
 Gly Val Phe Ile Ile Glu Arg Glu Thr Gly Trp Leu Lys Val Thr Gln
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 Binding Motif

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<210> 9

<211> 4

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<213> Unknown

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Binding Motif

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1 5

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Cys Leu Arg Ala His Gly Val Asp Cys
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Ala His Ala Val Asp Ile
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 recognition sequence

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Cys His Gly Val Ser Cys
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<210> 40

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<210> 42

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<212> PRT

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Ser His Ala Val Ser Ser
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<210> 47

<211> 6

<212> PRT

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<223> Description of Artificial Sequence: Cyclic control peptide

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Ser His Gly Val Ser Ser
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<210> 48

<211> 8
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<210> 49
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<210> 50
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<210> 51
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 recognition sequence

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 and/or C-terminal modifications such as amide or
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 Cys His Ala Val Asp Ile Asn Cys
 1 5

<210> 52
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 adhesion recognition sequence bound by
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 Tyr Ile Gly Ser Arg
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<210> 53
 <211> 10
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism: Cadherin cell
 adhesion recognition sequence bound by N-CAM

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 Lys Tyr Ser Phe Asn Tyr Asp Gly Ser Glu
 1 5 10

<210> 54
 <211> 17
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<213> Unknown

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<223> Description of Unknown Organism: N-CAM heparin sulfate binding site

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Phe

<210> 55

<211> 4

<212> PRT

<213> Unknown

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<223> Description of Unknown Organism: Occluding cell adhesion recognition sequence

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Leu	Tyr	His	Tyr
1			

<210> 56

<211> 8

<212> PRT

<213> Unknown

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<221> MOD_RES

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<221> MOD_RES

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<223> Where Xaa is an independently selected amino acid residue

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<221> MOD_RES

<222> (5)

<223> Where Xaa is either Serine or Alanine

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<221> MOD_RES

<222> (6)

<223> Where Xaa is either Tyrosine or Phenylalanine

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 <222> (7)
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<210> 57
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 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism: Nonclassical
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 <222> (4)
 <223> Where Xaa is Isoleucine, Leucine or Valine

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 <221> MOD_RES
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 <223> Where Xaa is Aspartic Acid, Asparagine or Glutamic
 Acid

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 residue

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<400> 57
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5

<210> 58
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<223> Description of Unknown Organism: Representative
claudin cell adhesion recognition sequence

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Ile Tyr Ser Tyr
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<210> 59
<211> 4
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<223> Description of Unknown Organism: Representative
claudin cell adhesion recognition sequence

<400> 59
Thr Ser Ser Tyr
1

<210> 60
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<223> Description of Unknown Organism: Representative
claudin cell adhesion recognition sequence

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Val Thr Ala Phe
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<210> 61
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<220>

<223> Description of Unknown Organism: Representative
claudin cell adhesion recognition sequence

<400> 61
Val Ser Ala Phe
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<210> 62
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<223> Description of Artificial Sequence:  Synthesized
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<222> (9)-
<223> tert-butyl protecting group

<220>
<221> MOD_RES
<222> (10)-
<223> Methoxy terminal group

<400> 62
Cys Asp Gly Tyr Pro Lys Asp Cys Lys Gly
  1             5             10

<210> 63
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Synthesized
Cyclic Peptide

<220>

<221> MOD_RES

<222> (1)

<223> 9-fluorenylmethoxycarbonyl protecting group

<220>

<221> MOD_RES

<222> (2)

<223> tert-butyl protecting group

<220>

<221> MOD_RES

<222> (4)

<223> tert-butyl protecting group

<220>

<221> MOD_RES

<222> (6)

<223> t-butoxycarbonyl protecting group

<220>

<221> MOD_RES

<222> (7)

<223> tert-butyl protecting group

<220>

<221> MOD_RES

<222> (9)

<223> tert-butyl protecting group

<220>

<221> MOD_RES

<222> (10)

<223> Methoxy terminal group

<400> 63

Cys	Asp	Gly	Tyr	Pro	Lys	Asp	Cys	Lys	Gly
1				5					10

<210> 64

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthesized
peptide

<220>

<221> MOD_RES

<222> (1)

<223> Residue has t-butoxycarbonyl, and Trityl or
Acetamidomethyl protecting groups

<220>
 <221> MOD_RES
 <222> (5)..(6)
 <223> tert-butyl protecting group

<220>
 <221> MOD_RES
 <222> (7)
 <223> Trityl or acetaminomethyl protecting group

<400> 64
 Cys Gly Asn Leu Ser Thr Cys Met Leu Gly
 1 5 10

<210> 65
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthesized
 cyclic peptide

<220>
 <221> MOD_RES
 <222> (1)
 <223> t-butoxycarbonyl protecting group

<220>
 <221> MOD_RES
 <222> (5)..(6)
 <223> tert-butyl protecting group

<400> 65
 Cys Gly Asn Leu Ser Thr Cys Met Leu Gly
 1 5 10

<210> 66
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthesized
 peptide

<220>
 <221> MOD_RES
 <222> (2)
 <223> Residue has Acetamidomethyl or
 tert-Acetaminomethyl or tert-butyl protecting
 group

<220>

<221> MOD_RES
 <222> (6)
 <223> Residue has Acetamidomethyl, tert-Acetamidomethyl
 or tert-butyl protecting group

<220>
 <221> MOD_RES
 <222> (9)
 <223> AMIDATION

<400> 66
 Cys Tyr Ile Gln Asn Cys Pro Leu Gly
 1 5

<210> 67
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthesized
 cyclic peptide

<220>
 <221> MOD_RES
 <222> (9)
 <223> AMIDATION

<400> 67
 Cys Tyr Ile Gln Asn Cys Pro Leu Gly
 1 5

<210> 68
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic
 peptide with classical cadherin cell adhesion
 recognition sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<220>
 <221> MOD_RES
 <222> (5)
 <223> Where Xaa is beta,beta-dimethyl cysteine

<400> 68
 Cys His Ala Val Xaa

1 5

<210> 69
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic
 Peptide with classical cadherin cell adhesion
 recognition sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<220>
 <221> MOD_RES
 <222> (2)
 <223> Where Xaa is beta,beta-tetramethylene cysteine

<400> 69
 Ile Xaa Tyr Ser His Ala Val Ser Cys Glu
 1 5 10

<210> 70
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic
 Peptide with classical cadherin cell adhesion
 recognition sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<220>
 <221> MOD_RES
 <222> (2)
 <223> Where Xaa is beta,beta-pentamethylene cysteine

<400> 70
 Ile Xaa Tyr Ser His Ala Val Ser Ser Cys
 1 5 10

<210> 71
 <211> 9

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic peptide with classical cadherin cell adhesion recognition sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal modification such as acetyl or alkoxybenzyl group and/or C-terminal modifications such as amide or ester group

<220>
 <221> MOD_RES
 <222> (1)
 <223> Where Xaa is beta-mercaptopropionic acid

<400> 71
 Xaa Tyr Ser His Ala Val Ser Ser Cys
 1 5

<210> 72
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic peptide with classical cadherin cell adhesion recognition sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal modification such as acetyl or alkoxybenzyl group and/or C-terminal modifications such as amide or ester group

<220>
 <221> MOD_RES
 <222> (1)
 <223> Where Xaa is
 beta,beta-pentamethylene-beta-mercaptopropionic
 acid

<400> 72
 Xaa Tyr Ser His Ala Val Ser Ser Cys
 1 5

<210> 73
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic peptide with classical cadherin cell adhesion recognition sequence

<220>
 <221> MOD_RES
 <222> (4)⁻
 <223> Where Serine is D-Serine

<400> 73
 His Ala Val Ser Ser
 1 5

<210> 74
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthesized cyclic peptide

<400> 74
 Trp Gly Gly Trp
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<210> 75
 <211> 15
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Description of Artificial Sequence:
 Representative immunogen containing the HAV
 classical cadherin cell adhesion recognition
 sequence

<220>
 <223> N-cadherin with HAV cell adhesion recognition
 sequence and flanking amino acids

<400> 75
 Phe His Leu Arg Ala His Ala Val Asp Ile Asn Gly Asn Gln Val
 1 5 10 15

<210> 76
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic peptide with classical cadherin cell adhesion

recognition sequence

<220>

<223> Cyclic Peptide may comprise N-terminal modification such as acetyl or alkoxybenzyl group and/or C-terminal modifications such as amide or ester group

<400> 76

Cys His Ala Val Asp Ile Asn Gly Cys
1 5

<210> 77

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic peptide with classical cadherin cell adhesion recognition sequence

<220>

<223> Cyclic Peptide may comprise N-terminal modification such as acetyl or alkoxybenzyl group and/or C-terminal modifications such as amide or ester group

<400> 77

Ser His Ala Val Asp Ser Ser
1 5

<210> 78

<211> 48

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown Organism: Occludin cell adhesion recognition sequence and flanking amino acids

<400> 78

Gly Val Asn Pro Thr Ala Gln Ser Ser Gly Ser Leu Tyr Gly Ser Gln
1 5 10 15

Ile Tyr Ala Leu Cys Asn Gln Phe Tyr Thr Pro Ala Ala Thr Gly Leu
20 25 30

Tyr Val Asp Gln Tyr Leu Tyr His Tyr Cys Val Val Asp Pro Gln Glu
35 40 45

<210> 79

<211> 10

<212> PRT

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Peptide with
 classical cadherin cell adhesion recognition
 sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<400> 79
 Leu Arg Ala His Ala Val Asp Ile Asn Gly
 1 5 10

<210> 80
 <211> 14
 <212> PRT
 <213> Homo sapiens

<220>
 <223> N-cadherin with HAV cell adhesion recognition
 sequence and flanking amino acids

<400> 80
 Arg Phe His Leu Arg Ala His Ala Val Asp Ile Asn Gly Asn
 1 5 10

<210> 81
 <211> 12
 <212> PRT
 <213> Homo sapiens

<220>
 <223> E-cadherin with HAV cell adhesion recognition
 sequence and flanking amino acids

<400> 81
 Thr Leu Phe Ser His Ala Val Ser Ser Asn Gly Asn
 1 5 10

<210> 82
 <211> 4
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism: Cadherin Calcium
 Binding Motif

<220>
 <221> VARIANT
 <222> (1)...(4)
 <223> Xaa is any amino acid

<400> 82

Xaa Asp Xaa Glu
1

<210> 83
<211> 4
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown Organism: Cadherin Calcium
Binding Motif

<400> 83
Asp Val Asn Glu
1

<210> 84
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>
<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 84
Cys His Ala Val Cys Tyr
1 5

<210> 85
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>
<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 85
Cys Phe Ser His Ala Val Cys
1 5

<210> 86
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 86

Cys Leu Phe Ser His Ala Val Cys
1 5

<210> 87

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 87

Cys His Ala Val Cys Ser
1 5

<210> 88

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 88

Ser Cys His Ala Val Cys
1 5

<210> 89

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 89

Cys His Ala Val Cys Ser Ser
1 5

<210> 90

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 90

Ser Cys His Ala Val Cys Ser
1 5

<210> 91

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 91

Cys His Ala Val Cys Thr
1 5

<210> 92

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 92

Cys His Ala Val Cys Glu
1 5

<210> 93

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 93

Cys His Ala Val Cys Asp
1 5

<210> 94

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 94

Cys His Ala Val Tyr Cys
1 5

<210> 95

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 95

His Asn Cys His Ala Val Cys Tyr
1 5

<210> 96

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<400> 96

His Asn Cys His Ala Val Cys
1 5

<210> 97

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide
with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal
modification such as acetyl or alkoxybenzyl group
and/or C-terminal modifications such as amide or
ester group

<220>

<221> MOD_RES

<222> (5)

<223> Where Xaa is beta,beta-dimethyl cysteine

<400> 97

Cys His Ala Val Xaa

1 5

<210> 98
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic Peptide
 with Classical Cell Adhesion Recognition Sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<220>
 <221> MOD_RES
 <222> (1)
 <223> Where Xaa is beta,beta-dimethyl cysteine

<400> 98
 Xaa His Ala Val Cys
 1 5

<210> 99
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic Peptide
 with Classical Cell Adhesion Recognition Sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group
 and/or C-terminal modifications such as amide or
 ester group

<400> 99
 Cys His Ala Val Pro Cys
 1 5

<210> 100
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Cyclic Peptide
 with Classical Cell Adhesion Recognition Sequence

<220>
 <223> Cyclic Peptide may comprise N-terminal
 modification such as acetyl or alkoxybenzyl group

and/or C-terminal modifications such as amide or ester group

<400> 100

Tyr Cys His Ala Val Cys
1 5

<210> 101

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Cyclic Peptide with Classical Cell Adhesion Recognition Sequence

<220>

<223> Cyclic Peptide may comprise N-terminal modification such as acetyl or alkoxybenzyl group and/or C-terminal modifications such as amide or ester group

<220>

<221> MOD_RES

<222> (5)

<223> Where Xaa is beta,beta-dimethyl cysteine

<400> 101

His Asn Cys His Ala Val Cys Ser
1 5